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Congressional Documents.

REPORT OF THE MAJOR GENERAL COMMANDING THE ARMY.

Headquarters of the Army,
Washington, November 24, 1843.

Sir: Herewith, I have the honor to submit the tabular views of the army, required yearly from general headquarters, as carefully prepared by the Adjutant General for my examination. The tables are—

1. *Organization of the army*, (marked A ;)

2. *General return* (or *actual* state) of the army, (now and since the act of August 23, 1842,) undergoing a gradual reduction, (marked B ;)

3. *Distribution of the army* (with a view to frontiers) among military geographical departments and posts, (marked C ;) and,

4. *Exhibit of enlistments*, or rather re-enlistments (177) between the end of August, 1842, and the beginning of October, 1843, into certain companies which successively fell below the new complement of men, or ultimate standard provided by law, (marked D.)

The motives and authority for that small number of re-enlistments will both fully appear by reference to paper D, and the first section of the act of August 23, 1842. There is, however, remaining an excess of a few hundred enlisted men *in other* companies, (compared with the ultimate standard,) which excess, according to average casualties, (deaths, discharges, &c.,) must disappear in a month or two. To keep up the establishment, it will then be necessary to recommence the *general* recruiting service; particularly, as returning, in 1838 and 1839, from the unsuccessful experiment of *three* years' enlistments, to the old term of five years, the number of discharges in all 1844, will be unusually great.

The Florida war having been happily terminated by Brigadier General Worth, in the summer of 1842, the army has been engaged in no field operations, professionally speaking, since. Large detachments of the late *first* (now *only*) regiment of dragoons, have, however, within the last five months, been actively employed in escorting to and from the frontier of New Mexico (the Upper Arkansas) several caravans, American and Mexican, trading between the Missouri and Santa Fe. This escort duty, cheerfully executed, has been attended by considerable extra expense to Government, besides the loss of horses, and much risk and privation to the troops. The officers (particularly Captain Cooke) and their companies, have, in those distant expeditions, displayed an intelligence, enterprise, and hardihood, which entitle them to very great praise. Not the slightest loss was sustained by either of those caravans, (in possession of large amounts of specie and merchandise,) either from the roving Indians (the Arabs of the prairies) or the more lawless white bandits who have recently infested those remote regions.

The movements and interchanges of troops since the date of my last annual report, have been but few, (here and there a single company,) and need not be specially noticed. They have had for their object, besides attending Indian agents, payments, and conncils, under apprehended danger, to bring companies of the same regiment (mixed in coming out of Florida at different periods) in comparative contiguity; that is, within the same geographical limits, in order to facilitate regimental correspondence and inspections, without which there can be no exact responsibility or discipline. The present district of each regiment, and the post of every company, may be found by a glance at the table C. They are nearly all on the exposed frontiers, inland and Atlantic, ever ready to lead or to co-operate with the militia in defence of country; to give aid when required to the political and civil authorities—less potent in certain distant regions—and to set an example, on all occasions, of obedience to law and order. A happy instance of prompt interposition of that kind was given, some months ago, by Captain Webster, of the 1st artillery, commander at Fort Kent, in the Madawaska settlement, against the violators (from the side of New Brunswick, but without provincial authority) of the liberty of one of our citizens.

The only body of troops, beyond a company, or part of one, (to guard important arsenals,) stationed any where in our interior, is to be found at Jefferson barracks, near St. Louis, as the *Western reserve*. For a little more than a year, sixteen companies, equally of the 3d and 4th regiments of infantry, have been held in that position; each regiment having thrown out two companies upon the frontiers.

As the motives or advantages of this reserve do not seem to have been apparent, even to many intelligent citizens and political functionaries, I beg leave to state some of them in this place.

Jefferson barracks may be assumed as the interior centre of a cordon, commencing at the head of Lake Superior, and extending beyond our settlements to the Gulf of Mexico. That cordon is partially (*not* sufficiently) supported by military posts, with small garrisons, consisting of from one to seven companies each, furnished by the dragoons, the 1st, 6th, and 7th regiments of infantry, and the rifle regiment, together with the four companies detached from the reserve. To give to so extended a line of frontier (in length about 1,700 miles) reasonable security, *without a reserve*, would require at least five additional regiments.

A glance at the map will show that almost every part of that cordon, even from any of the North-western lakes to Tampa Bay, may be promptly and cheaply reached by the reserve, with its necessary supplies, and mostly by steam, following the great rivers and lakes, and the canals of Illinois, Indiana, and Ohio. Such facilities of rapid river, lake, and canal navigation, over so immense a space, are not to be found on any other part of the globe. And so might the reserve be brought to Baltimore by steam in less than ten days, including three on foot, between Wheeling and Cumberland.

But a reserve, to be decisive, when brought to the point of action, must have been held in a state of high health and military instruction; and, with a view to economy, within easy reach of all necessary supplies. The position of Jefferson barracks fulfils the first and third of those great conditions; and under the admirable personal instructions and example of Colonel Kearny, for the greater part of the time since the re-establishment of that reserve, the troops composing it have made great advances in moral and tactical instruction; in police, discipline, and administration. He is again in command, and I take much pleasure in presenting his name to the War Department, as every way worthy of praise and promotion.

I beg to offer one other remark in connexion with this subject, not likely to occur even to the intelligent, without military experience; small garrisons, scattered along a wild frontier, always, after a time, deteriorate in morals and military efficiency. Troops must, at least to some extent, be *massed*, with a view to the benefit, around and among them, of a sound public opinion, and, also, to inspire the ardor of military competition.

In a previous report, I took the liberty to speak of the great loss to the Western frontier which would result from dismounting the then 2d dragoons. That regiment has been serving on foot, as riflemen, since the 4th of March last. The experience of the current year has realized all my early apprehensions. One regiment of dragoons, however efficient, is not enough for that prairie frontier, covered with mounted Indians, independent of the recent superadded duty of escorting Santa Fe caravans. The riflemen are worthy of being again placed in the saddle, and I trust the regiment and the wants of the far West may find favor, through the Executive, with Congress.

I have recently, in oral communications, pressed on the attention of the department the extreme want of comfortable hospitals and quarters at many of the fortifications on the seaboard, in lieu of the cramped and most unwholesome *casemates* now in general use for both purposes. In time of war, officers and men are ever ready to brave disease and death in any form, in defence of country; but it would seem against the interest of the country and the credit of the Government, to lodge troops, with their sick, during, perhaps, a long-continued peace, in such miserable places. I recall the subject in writing, as it may be deemed proper to ask for an appropriation for suitable buildings, such as may be readily demolished, if in the way of defence, on the near approach of a public enemy.

Some further appropriations are required for repairing many of the inland barracks and quarters at permanent posts. These need not be large; but the labor of the troops, though a great saving, cannot, except in certain unappropriated districts, supply the heavy materials.

In my report of the last year, I suggested that, with a view to equalizing the hardships and benefits of the service between regiments of the same *arm*, (as artillery, infantry, or rifle,) I did not soon expect to propose interchanges of positions or districts between them, because none had then been long in position. In the course of 1844 nearly every regiment will have been two years or more in the same district of country; and experience having abundantly shown that periodical interchanges improve and maintain the efficiency of corps, I shall, in the next twelvemonth, propose to the department many such changes. Against the justice and policy of this course, there can be no public objection, other than the extra expense. This, however, under judicious management, will be, comparatively, but inconsiderable.

A sensible progressive improvement in the police, administration, and tactical instruction of the army, is reported by both commanding and inspecting officers. The recent introduction of post chaplains, each of good standing in his respective religious community; the establishment of day schools for soldiers' children, and night schools for the men themselves, with numerous temperance associations—all either set on foot or encouraged by the good example of officers—have had the best effects on the rank and file. Reciprocal respect and good will between the latter and superiors are becoming more and more general. Hence, of late, comparatively but few prisoners, or courts martial, and fewer desertions. The larger garrisons of Fort Monroe (Hampton roads) and Jefferson barracks, are reported as the most distinguished in those admirable improvements and reforms; and I have not heard of a duel between any two of our officers in a long series of years. Education, religion, good morals, and good manners, seem, in a gallant profession, wholly to have suppressed that most uncertain and most barbarous of appeals.

Of the discipline of the army—that important element of efficiency—prompt and cheerful obedience to law and to lawful commands, including the certain punishment of every breach of either; of *discipline*, thus technically understood, I may say, if it be not universally respected and enforced on the part of commissioned officers, the exceptions have been of late, but few, and are becoming yearly fewer. Here, again, as in respect to morals, science, and literature, the benefits and beauty of an education at the United States military academy are highly conspicuous in the staff, in corps, and in regiments. Throughout the whole, directly and indirectly, the standard of excellence has been greatly elevated by that institution. One officer, (occasionally on duty,) with rank sufficient to render his example of disobedience, &c., highly mischievous; some hesitancy on the part of several courts martial to punish officers for un

lawfully striking or beating soldiers; and the positive refusal, as yet, of an existing court to award any correction in a like case—these are the principal exceptions, under the head *discipline*, which call for animadversion in a solemn report. The hesitancy, in some former courts, was soon overcome by reason and calm advice, at the instance of the Executive. The court remaining contumacious, is, I am sorry to say, composed of officers taken from those otherwise fine regiments, the 3d and 4th infantry, now in reserve at Jefferson barracks. I need scarcely add, that this case and that of the individual of rank alluded to above are not, in the special matters, under my control. See act amending the 65th article of war, approved May 29, 1830, which, perhaps, in a hasty moment, found a place on the statute book. By its first section—new to our service, and as utterly unknown to every other—no commander of a military geographical department or division, no commander of a particular army operating in the field, and not the commander of the entire army at general headquarters, can send any breach of discipline coming to his knowledge, or committed under his eye, to a court martial, because, in doing so, he would render himself "the accuser or prosecutor," and, as such, be prohibited, by the new provision, from appointing a court for the trial of the offence! Under such a restriction, it is not too much to say that no general whatever could hope to conduct a single campaign with success. With the appearance of guarding the interests and feelings of all junior officers, the law is itself the severest reflection on them, in supposing it possible that juniors, no matter by whom detailed, might, at the prosecution of the commander, be subservient enough to inflict punishment against conscience, justice, and law!

The good of the service, in my humble opinion, still calls for the several legislative meliorations heretofore recommended by me, and they might be repeated in this place; but I forbear. Should those suggestions be deemed of any value, it would be easy to find them in former reports, bound up in the printed Congressional documents.

I have the honor to remain, sir, with high respect, your obedient servant,

WINFIELD SCOTT.

Hon. J. M. PORTER,
Secretary of War.

REPORT OF THE QUARTERMASTER GENERAL.

QUARTERMASTER GENERAL'S OFFICE,
Washington City, October 25, 1843.

SIR: In compliance with your instructions, I have the honor to report the operations of the branch of the public service confided to my administration during the period embraced by the fourth quarter of the last year and the first and second quarters of the present year.

On the 30th of September, 1842, there remained in the hands of the officers of the department throughout the Union, mostly applicable to the service of the ensuing quarter, a balance of		$312,734 03
To which is to be added—		
1st. Remittances, viz:		
In the 4th quarter of 1842	$389,319 69	
In the 1st quarter of 1843	314,479 20	
In the 2d quarter of 1843	231,734 75	
		935,533 64
2d. Amount of sales of public property, rents, and premiums on drafts		45,600 78
Making a total to be accounted for of		1,293,868 54
From which is to be deducted—		
1st. Expenditures, viz:		
In the quarters preceding September 30, 1842, but the accounts for which were not received in time to be included in my last report	$2,084 96	
In the 4th quarter of 1842	535,455 07	
In the 1st quarter of 1843	253,504 50	
In the 2d quarter of 1843	313,129 32	
	1,104,133 85	
2d. Repayments into the Treasury by officers accountable for public money or property during the year	4,112 78	
		1,108,246 63
Leaving a balance to be accounted for of		185,621 82

the greater part of which was applicable to the service of the subsequent quarter, and all of which it is believed will be found to have been accounted for when the accounts of that quarter shall have been received. The war having terminated in Florida, no special appropriation will be required for the current service there; but the supplies for the whole army, as well as all the expenses attending its operations, will become charges upon the regular appropriations.

Of the unsettled Florida claims, principally growing out of the service of irregular bodies of militia and volunteers, an amount exceeding three hundred thousand dollars has been examined at this office, and sent to the Treasury. The accounting officers have reported adversely on a part of it, and it is doubtful whether one-half of the amount will be paid, at least for some time to come; but a large portion of it is unquestionably just, and I recommend that an appropriation be asked to cover such part of it as the accounting officers may decide shall be paid.

For the quartermaster's department proper appropriations amounting in the aggregate to seven hundred and six thousand dollars are required, and for

army contingencies nine thousand dollars, for both of which I present estimates.

For clothing and equipage there will be required for the next fiscal year two hundred and sixty-seven thousand four hundred and twenty-six dollars; but it is believed there will remain in the Treasury of the present appropriation, not required for the present fiscal year, a balance of at least one hundred and seven thousand four hundred and twenty-six dollars, leaving to be supplied by appropriation one hundred and sixty thousand dollars.

The officers of the department have been actively and usefully employed during the whole period since my last report. The senior colonel is at Philadelphia, where he performs all the duties of the late Commissary General of Purchases; by his efficient arrangements the quality of the supplies has been improved, the accountability rendered more perfect, and the expenses of the establishment considerably reduced. The junior colonel has the important station of New York, on which so many of the other posts depend for a portion of their supplies. He might be more advantageously employed as an inspector, and under the authority of the regulations it was my intention so to employ him; but believing that Congress, by its legislation in regard to the inspector generals of the army, had expressed an opinion adverse to inspectors, I decided, on reflection, to postpone all action on the subject, for the present at least, as a mark of respect due to the opinions of that body, though I am sure that two of the superior officers of the department might be usefully employed for some time to come, if not continuously, on that service; and if so employed, and at the same time clothed with authority to correct all irregularities and abuses on the spot, the expenses might be greatly reduced, without impairing in the slightest degree the efficiency of any branch of the service.

The termination of the war in Florida having diminished the duties connected with the field, as well as those connected with important depots, several of the assistant quartermasters have been ordered to join their companies, where they perform company duty, in addition to that of their department. The same cause has enabled me to reduce considerably the civil branch of the department, including forage and wagon masters. Of this latter class of officers, the law authorizes the conditional appointment of twenty; only four are now employed, one of whom will go out at the end of the year, and the remainder as soon as their services can be dispensed with. The reduction of expense by the discharges already made will exceed thirty thousand dollars per annum.

The great object of supporting a peace establishment is to prepare for war. One of the most efficient means of preparation is an able and well-instructed staff, at all times ready for action. Where the establishment is small, and raw troops have in consequence to be employed on every emergency, it is important that as many officers as possible be qualified for staff duties. With that object in view, I respectfully suggest such a modification of existing laws as shall require all staff officers holding regimental appointments to be returned periodically to their regiments, and their places in the staff supplied by others. Were such a measure authorized, the captains and subalterns of the whole army would, in a few years, receive competent instruction in all that relates to the staff, and acquire habits of business which would render them doubly efficient and valuable to the country in the event of war. Three or at most four years would be a sufficient tour of service in the staff; but, in all cases, as officers attain a rank in their regiments equal to that which they hold in the staff, they should resume their positions in their regiments, whether their full period of service in the staff be completed or not. By the modifications which I suggest, the field appointments in the staff would be open to all the captains in the army, and every one would have an interest in qualifying himself for the promotion, and the harmony of the service, as well as its efficiency, would be promoted by the measure.

Of the works under the direction of this office, the buildings at Fort Smith were continued until the appropriation was exhausted. To render the labor already done of any value to the public, a further appropriation is necessary. The officer superintending the operations estimates the sum of sixty thousand dollars as required to complete all the buildings. For that sum I have submitted an estimate.

I consider it my duty again to ask the attention of the Secretary of War to the condition of Fort Gibson. The troops can have neither health nor comfort there, in their present barracks; and it would be a great error in policy to withdraw them. If they are to remain, suitable barracks and defences should be commenced at once. To spend the small appropriation made last year on the old buildings would be throwing it away; and to commence a new work without a larger appropriation would be useless, as in the course of two or three months we should be compelled to stop for want of money. I recommend an additional appropriation of twenty-five thousand dollars.

At Fort Towson extensive repairs are being made, and additional buildings have been put up, and are nearly completed. An appropriation of six thousand dollars will be required to complete the work.

Measures have been adopted to establish a saw mill at Fort Washita, to facilitate the works in progress there.

At Fort Jesup, Louisiana, the buildings, put up originally of slight materials, required almost entire renewal. Additional buildings were necessary, and are in progress. An appropriation of eight thousand dollars will be required to complete the works.

At Fort Morgan, Mobile point, slight repairs have been made; and at Fort Pickens, near Pensacola, a stable, hospital, and other buildings, have been put up. At both posts barracks are required. There is sufficient room in the casemates for the garrison, but in that climate troops cannot live in casemates; and if the nation cannot afford comfortable barracks and other accommodations for them, such as shall give reasonable assurance of preserving their health in that sickly latitude, it would be humanity to disband them. Though I have considered it my duty to re-

quest your attention to the wants of those posts, I have not submitted an estimate for either. They are regularly fortified; and all buildings at fortified posts should be erected under the direction of officers of the corps of engineers, who are supposed to be better able to combine them with the general arrangements for defence than the officers of other corps.

Barracks and other buildings, for the accommodation of two companies, are being erected at Key West. A hospital and storehouses should be immediately commenced, and additional lands purchased. A tract of thirty-five acres, adjoining the public grounds, is offered by the proprietor at a very reasonable price. The sanction of Congress is necessary to the purchase; and I recommend that it be asked.

Key West, the Dry Tortugas, and Key Biscayne, are the great strategic points on our Southern frontier. They should be strongly fortified. Combined with proper naval means, they would command completely the northern entrance into the Gulf of Mexico, and afford better protection to the commerce of the whole West and Southwest than ten times the force employed at any other points or in any other way. To render secure our vast possessions, we must pay more attention to the principles of strategy. On that subject we have an admirable lesson in the policy adopted and persevered in by Great Britain. That nation, by its positions, held by a comparatively small force, has completely checkmated the globe. The three positions named might be rendered impregnable by an expenditure not exceeding four millions of dollars. They would be worth, in military effect, an expenditure of fifty millions.

The barracks and other buildings at St. Augustine, the repair of which was authorized last year, were found, on examination, to be so dilapidated as to require almost entire renewal. They have been thoroughly repaired and renewed. A storehouse and additional barracks for two companies have been erected, and a cistern constructed. Much of the labor has been performed by the troops—a portion of it by prisoners, without extra compensation. Two additional lots of land, adjoining the barracks, are required for public use, for the purchase of which I have presented an estimate.

At Savannah, a hospital and guard house are required; also, additional accommodations for the troops, including the officers.

At Fort Moultrie, three blocks of buildings within the fort have been thoroughly repaired; the public wharf has been repaired, or rather renewed; two ordnance storehouses converted into barracks for companies of artillery; mess rooms, kitchens, &c., erected; other buildings repaired; and a cistern constructed.

At Fort Johnston, North Carolina, the old barracks and quarters have been repaired, and a block of new barracks, a hospital, cisterns, and a wharf, have been constructed. An additional building is required, as officers' quarters.

At Fort Monroe, gun houses and a boat house have been erected, and extensive repairs have bee n made; and at Fort Macon repairs are in progress and a hospital authorized.

At Fort Severn, the barracks, quarters, and magazine, have been repaired, and stable, storehouse, hospital, kitchen, and boat house, are being erected.

At Fort McHenry, the barracks and other buildings have been repaired, a gun-carriage house erected, and the ordnance storehouse and gun-shed enlarged and extended.

Improvements and repairs have been made at Schuylkill arsenal, Philadelphia, and a subsistence storehouse and carpenter's shop erected at Fort Mifflin. The barracks require repairs, which have been authorized.

In New York harbor, gun sheds have been erected on Governor's island, Bedlow's island, Ellis's island, and Staten island. Quarters, at a cost of near ten thousand dollars, have been erected for the commanding officer of the troops; and the quarters within the walls of Fort Columbus have been repaired.

At Fort Hamilton repairs have been made, but barracks and quarters are required there for both officers and men. The work is casemated, and is represented as totally unfit for the accommodation of troops; a hospital is also required. I present no estimate for this work, believing that all buildings connected with it should be directed by the engineers.

At Fort Trumbull slight repairs have been made, and at Fort Griswold a gun house erected.

At Fort Adams a gun shed and guard house have been erected, the quarters repaired, and stables for the artillery horses completed.

A gun house has been erected at New Bedford, Massachusetts, and repairs have been made to the quarters and other buildings at Fort Constitution, New Hampshire, and at Forts Preble and Sullivan, and Hancock barracks, Maine.

At Plattsburg the stone barracks and quarters have been so far completed as to be already occupied by one company; about $5,000 will be required to complete the buildings already commenced.

At Fort Ontario repairs have been made, a gun house and other buildings erected, and the accommodations will be completed at a further expense not exceeding $100.

New barracks, quarters, and other buildings, are required at Fort Niagara, for the accommodation of the troops and the protection of the public property; but, as it is a fortified place, I make no estimate, though I consider it my duty to bring to your notice the wants of the service.

At Detroit temporary barracks have been erected, and repairs have been made, and Fort Gratiot has been re-enclosed with pickets; all the buildings there should be renewed, or the troops withdrawn.

Fort Brady should be entirely renewed; and for that purpose I have included an item of $15,000 in my estimate. The buildings at that post were erected of slight materials, some twenty years ago, and were hastened to completion by the approach of winter; they are now completely dilapidated; to repair them would be a prodigal waste of the public means. So far as relates to climate, Fort Brady is further north than any other position occupied by the army

it is the salient point in the line of our frontier defences, and its garrison is exposed to the rigors of an almost Siberian winter. Instead, therefore, of affording the very worst accommodations, as it now does, to the troops, it should afford the best. Cut off, as the officers and men are for several months in the year, from all intercourse with the world, every accommodation not incompatible with the general interests of the service should be extended to them, to alleviate, as far as possible, the privations to which they are subjected; both health and discipline would be promoted by providing such accommodations as the severity of the climate and the military importance of the position render necessary.

At Mackinac valuable repairs and improvements have been made by Captain Scott, and almost without expense; his example is worthy of imitation.

Extensive repairs are required at Fort Winnebago, Fort Crawford, and Fort Snelling; but they can be made at little expense, by the labor of the troops.

At Fort Atkinson the outstanding debts were greater than they were believed to be at the day of my last report; I have included in my estimate a sum sufficient to pay them. The block houses at that post have been completed.

At Fort Des Moines, established within the year, a hospital, barracks for the men, and quarters for the officers, were so far advanced at the last report, that I entertain no doubt of their completion within the year. Repairs have been made at Fort Leavenworth and Jefferson barracks.

At Fort Scott, on the western frontier of the Missouri, the quarters, barracks, hospital, and other buildings, were, at the last report, in such a state of forwardness that no doubt is entertained of the completion of all these buildings by the close of the year, unless the troops, who perform the greater part of the labor, be required for service elsewhere.

In relation to the supplies furnished through this department, and the allowances paid, in place of leaving them to Executive discretion, as has been heretofore done, I submit whether it might not be well to regulate them by law as far as possible. Complaints are made, and with some degree of plausibility, of the oppressive regulation in regard to the travelling allowance; that allowance was no doubt often abused; but I doubt the justice of the remedy, as well as the policy of subjecting the whole service to punishment for the offences of a few individuals. I am aware that unless the travelling be restricted the expenditures would exceed any reasonable appropriation; but the remedy is with the Secretary of War and the General commanding the army; they have the power to restrict. The true principle, both as regards the officers and the public, is, that whilst the former should not be required to beggar themselves in the performance of their duties, the latter should pay for no travelling for the personal convenience of any one. No journey should be sanctioned unless public interest requires that it be performed, and of that the Secretary of War or the General-in-chief would be the proper judge; and the journey authorized, all indispensable expenses should be paid. Scarcely a case could occur in peace, except on the extreme western frontier, where a journey, supposed by the local commander to be necessary, might not be delayed until the decision of the General or the Secretary be obtained. This matter is settled by law in the naval service, and navy officers receive double the allowance of army officers when travelling on the same route and in the same conveyance. So long as this discrepancy remains, whether sanctioned by law or regulation, the complaints will not only be frequent, but loud.

The allowance of quarters could not so well be regulated by law; but it is desirable that plain furniture be provided at the public expense for the quarters at the several posts, the officers who have the use of it to be accountable for it, and make good any loss or damage. This would render the service more efficient, by enabling all officers to move promptly when they receive orders, and save them from ruinous losses arising from the sacrifice of their furniture at hasty sales. It would, besides, put the military on a footing of equality with the naval service.

The allowance of forage is conditional, and depends upon law. It is no more an emolument to the army officer who legally receives it than the repairs of the ship are to the navy officer; but it subjects all who receive it to injurious imputation. I submit whether it would not be better to reduce it, and make it positive, or, if left conditional, as at present, that it be allowed only for horses actually mustered.

With high consideration and respect, I have the honor to be, sir, your obedient servant,

TH. S. JESUP,
Quartermaster General.

Hon. J. M. Porter,
Secretary of War.

The Coast Survey.—We hear from Washington that Dallas Bache, Esq. has been appointed by the President successor of Mr. Hassler. Mr. Bache is a man of unquestionable ability, and of large scientific attainments; but the particular work of the coast survey requires practical skill in the manipulation of instruments, which he has not had the opportunity of acquiring, but which the three assistants now on the survey, Messrs. James Ferguson, Edmund Blunt, C. M. Eakin, eminently possess, together with the scientific qualifications.

It would seem only just to individual merit, and conducive to the good of the service, that when men, who for more than ten years, have devoted their faculties and time to a great public work, can be promoted, they should be, rather than be subject to the mortification of seeing fresh men placed over them, however meritorious.

If the appointment of Mr. Bache be not final, we cannot but hope the claims of the Chief Assistants whom we have named will be duly considered.—*N. Y. American.*

There is this difference between happiness and wisdom: he that thinks himself the happiest man really is so; but he that thinks himself the wisest, is generally the greatest fool.

Foreign Miscellany.

ON THE FORM OF SHIPS.

At a recent British Association for the advancement of science, Mr. Scott Russell read the "*Report of the Committee on the Form of Ships.*"

The report was voluminous; it contained the reductions of a large number of experiments, and about 20,000 observations made on more than 100 vessels of different forms; accurate drawings of all of which, on a large working scale, were laid on the table. It was the hope of the committee that this report might be published, in order to give the public all the benefit which accurate knowledge on this point was likely to convey. He did not, therefore, enter fully into the details of these voluminous results, but would confine himself to a general account of the objects which this committee had in view, the methods of inquiry which they had adopted, and a few of the more general conclusions to which they had been led. These experiments had now occupied the attention of the committee during a period of five or six years, and it afforded him peculiar pleasure to be able to present the concluded investigation to this meeting. It had long been the reproach of science, that so little had been done to enable the practical man to proceed with certainty in his attempts to improve the speed of ships. There are some points in which science has done all that can be desired. The immersion of a ship, her trim, her centre of buoyancy, her stability, can all be determined with accuracy, beforehand, and the scientific naval constructor can proceed with certainty upon fixed principles It is otherwise with the speed and resistance of a ship. In nothing does calculation more completely fail them than in the attempt to determine beforehand the speed of a ship constructed on given lines, or to show how a form may be so altered as to render it faster than before. To calculate the resistance opposed by the water to the passage of a ship through it, and to find that form which, at a given velocity, will pass through the water with least resistance, and, of course, with the smaller expenditure of power—such was the problem hitherto the least solved, and always one of the most important, which these experiments were intended to investigate. There were also two phases in which this problem presented itself, the scientific and the practical view of the subject. There were, therefore, two classes of experiments—one designed to advance our knowledge of the laws of hydrodynamics which govern the phenomena of resistance of fluids, and the other, the experiments serving as a basis to the operations of the practical construction of ships—the *Experimenta lucifera* and the *Experimenta fructifera* of Lord Bacon. To the latter class he would confine the remarks of to-day. Many experiments had formerly been made on this subject, but we had, at that time, so imperfect a system of hydrodynamics, that the conclusions drawn from them could not be relied on with confidence by the practical man. The Academy of Sciences had made a series of such experiments at a large expense defrayed by the French Government. Colonel Beaufoy, in our own country, had made an important series of such experiments, at an expense of £30,000, but these were of comparatively little value, for the same reason, viz., that the forms did not comprehend such forms as were actually required for the purposes of naval construction, and because the state of science was not such as to enable us, from the resistance of one form, to deduce with certainty that of another. For the purpose of giving practical value to the present series, experiments had been made on many different scales of magnitude, some in narrow channels, others in large canals, and finally on the open sea. Some were made on models 3 ft. in length, others 10 ft., some on vessels 25 ft. long, 75 ft. long, and some on vessels 200 ft. long, and nearly 2,000 tons capacity. Thus it was trusted that the scale of the experiments was such as to give confidence in the results. Next, as regards the forms of vessels made the subject of experiment, these were similar to those required for the practical purposes of construction. One class consisted of such forms as were required for steam navigation. Plans of steam ships of the best construction and others of worse forms, were accurately laid down on the same scale, in the same way, and with the same accuracy of proportion as if they had been for actual service, and along with these were some of new forms. A given form having been found to be a good one, was then varied by lengthening, first in one manner, then in another, to discover the best mode of improving a given good form. In sailing vessels, some of the celebrated Chapman's best forms were taken, and treated in a similar manner, and along with them were compared the common forms of merchantmen and other ships. The class of fast-sailing yachts and cutters was treated in the same way, the object always being the determination in given circumstances of the method of giving such a form to a ship as shall enable her to pass through the water with the least resistance, the greatest velocity, and of course the smallest expenditure of force, power, and money. The methods of drawing these vessels through the water, varied with the scale on which the experiments were made. Those on the smallest scale were drawn by a weight arranged in such a manner as to supply a uniform force through any given distance—and on the largest scale, the experiments were made on the sea by means of powerful towing vessels. In this way the experiments were made on a wide range of magnitudes, both as regarded the vessels themselves and the sheet of water on which they were propelled, an element of resistance not always sufficiently taken into account. The resistance was accurately measured by dynamometric apparatus of great accuracy, through which the moving force was communicated to the vessel; the velocity being determined, in certain cases, by a peculiar apparatus designed for this purpose, and in other cases by instruments for measuring and marking time with accuracy. After the observations had been reduced by independent calculators, and not till then, were they made the subject of special examination, with reference to any theory; and thus it was conceived that the greatest amount of authenticity had been secured. The au-

thor then proceeded to give to the meeting a number of specimens of the results which the experiments afforded, such as he knew were likely to interest those members of the section who were acquainted with the principles of naval construction. He demonstrated a remarkable law, by which it appears, that each velocity has a corresponding form and dimension peculiar to that velocity; and he showed, in a variety of diagrams, the means of constructing such forms. To show how much influence *form* alone, without any other element or dimension, affects the question of resistance, he adduced the following as one of the most important experiments. Four vessels were taken, having all the same length, the same breadth, the same depth, the same area and form of midship section, and all loaded to the same weight, displacement, and draft of water. The only difference being in the character of the water-lines; No. 1 being of the new form indicated by these experiments as that of least resistance; No. 3 the old form, very nearly the reverse of the first; No. 2 intermediate between them, and No. 4 intermediate between No. 1 and No. 2. The following table shows the result of the comparative trial :—

Speed in miles per hour.	Resistance in pounds.			
	No. 1.	No. 2.	No. 3.	No. 4.
3 miles	10	12	12	11.3
4 "	18	22	23	21
5 "	28	38	42	35
6 "	39	61	72	56
7 "	52	96	129	84

These differences showed how much might be gained, every thing else being equal, by the adoption simply of judicious form in the construction of the water lines of a ship. The vessel No. 1 was constructed on the wave-line; the methods and rules for which he proceeded to explain in diagrams, too numerous for our space to admit. But we hope the speedy publication of the report itself may soon remedy this omission.

Mr. Perry observed that the position of the paddle-wheels in steam vessels was an important subject, which required to be determined, especially as different opinions were entertained by practical men whether the paddles should be nearer to the stern or to the head of the vessel.

Mr. J. Taylor observed that these experiments had been carried on for five years, and that the late Sir J. Robison, who had bean associated with Mr. Russell in their prosecution, had watched over them with great anxiety till within a short period of his death. The Association had expended £850 in making these experiments, and now came to the question, what was to be done with the valuable body of information that had been collected? It ought not to lie idle on their shelves, but ought to go forth to the public; and the best manner of accomplishing that would be a subject of consideration for the Council.

Mr. Russell said, that with regard to the position of paddles, the subject had been already taken up by the Government, and some practical results might shortly be expected. In conducting the experiments for the British Association, Sir J. Robison and himself having satisfied themselves as to the correctness of their system, they had endeavored to get it introduced without exciting opposition. The experiments were made in a ship-building country, and the ship-builders every now and then borrowed the forms of the boats that had been found to move the fastest through the water, and thus they had been gradually introduced. The *Flambeau* which was built on the Clyde in 1839, and one of the experimental lines, beat a vessel of greater length, though having but 75 H. P. against 120. In smooth shallow water the vessel on the old construction was a match for the *Flambeau*, but in a deep and heavy sea the experimental vessel beat the other by two miles an hour. There had been since constructed in that part of the country a whole class of vessels built of that form. The *Great Britain* had the wave water-line; and the *Vanguard*, which made her passage last week from Dublin to Cork in two hours less time than had ever been previously accomplished, constructed by the same builder who had made the models for the British Association experiments.

THE CHINESE WALL.—The "National Memoirs" of Father Hyacinth Butshurin, who was many years a member of the Russian Establishment at Peking, afford much novel information on the subject of the construction of the celebrated "Wall." The subsequent memoranda with regard to it are derived from a late number of that publication. Father Hyacinth controverts the opinion, prevalent among Europeans, that this extensive work, which stretches from the Gulf of Corea westwards to the fortress Zyayui-quin, is wholly built of stone, and has existed, without any essential decay or injury, for thirty centuries. And he shows that there are no grounds whatever for the assertion. The design of protecting the frontiers of the empire with walls was conceived in the fourth century before the birth of Christ, at a time when the territory within the wall, or what now constitutes "China Proper," was parcelled out into seven distinct sovereignties, many of their princes adopting the system of defending themselves against the inroads of their rivals by erecting walls along their frontiers. Father Hyacinth quotes many instances in point from the records of that age, and observes that remains of these defences are still met with in the interior of China. The system was afterwards adhered to and extended, but the material used was usually what the Chinese call "beaten earth," not stone. In the course of time, however, the walls so constructed have almost crumbled away; nor does it appear probable that war had much to do with their decay,—they seem to have been levelled, if not by the effects of rains and storms, by the appliance of the ploughshare.

When the Mongolians of Tshachar and Odos infested the northern borders of China in the middle of the fifteenth century, the ruling powers set about

the restoration of the wall in that direction, rebuilt that portion of it which extends from Da-tchan-fie westwards to Byan-tsheu-guan, a distance of 601 li, (about 214 miles,) and in the year 1546, renovated a further portion of 300 li, though in what precise quarter is not specified. In the following year the great wall in the province of Datchanfu was erected. Although Chinese history gives no information respecting the further extension of the wall to the Gulf of Corea, no doubt can exist that the great wall now existing between Shanchaiguan Shopchinfu in Tshi-li, which is faced with stone and bricks, was constructed anew under the Ming dynasty; for it is not possible that the barrier of earth thrown up in the sixth century should have remained entire until the fifteenth. The great wall, stretching from Shopchinfu in a westerly direction, is 3,950 li (about 1,410 miles) in length, and was built in the fifteenth and sixteenth centuries. Part of this chain, which extends from Shopchinfu southwards, and thence to the north-east, as far as Lake Chuamatshi, was constructed in the year 1472; but the majority of the military colonists, who are appointed to guard the Chinese border, having fixed upon the northern side of the wall for their agricultural settlements, the foundation of the existing wall was laid in 1504, and the earlier line of defence was thenceforth designated "the Second Wall." Similar duplications of walls are to be met with in other provinces; for instance, in Lyant-sheufu. The facing of the ancient walls of earth with bricks and granite was begun in the fifteenth century; this, therefore, is the true date of all the lines so faced.

From the western borders of the province of Tshi li, the wall thence takes a westerly direction, through the provinces of Sun-si, is built of beaten loam, without any facing, of inconsiderable width, and not more than five feet in height. Further onwards, namely, from Sun-si to Shan-si, the Hoango, or Yellow River, forms the the frontier defence, instead of the great wall, and is protected by isolated posts. Beyond this, still in a westerly direction, the wall is low and narrow, buried in sand where sandy plains occur, and in other places completely levelled; the only exception being in Sutshen, near the fortress of Zyayui-quin, where it is in a good state of preservation. It may be remarked that the walls of the fortress itself are not built even of bricks, but of compressed earth. Lower down, towards the south, no defence fit to be termed a wall exists; the only approximation to it is a ditch, provided at certain points with a better kind of wall.—*United Service Mag.*

Tandum Club.—The British officers have fine times in Halifax during the winter. The Herald of the 15th says: "The Club turned out yesterday for the second time this winter, and made even a better appearance than on the first occasion. The number of sleighs was greater, and the addition of ladies, who, although the weather was by no means cold, were smothered in furs, gave a more sociable appearance to the turnout. Lieut. Standish, R. B., four in hand, took the lead as President, and the rear was brought up by the Vice President, Lieut. Col. Blois, 52d Light Infantry.

FLOATING ISLANDS AND GARDENS.

There have been, and yet are, many islands or islets which float in water, and have no solid foundation beneath them. A fact so contrary to our usual experience may seem strange; but there are in most instances the means of forming some idea of their mode of production. A few of the most remarkable may not be unworthy of a slight notice.

The floating islands and gardens of Mexico, though now little regarded, were at one time of great celebrity. When the Mexicans were brought into subjection to the Calhuan and Tepanecan nations, and confined to some small islands in a lake, they ceased for some years to cultivate the land on account of their limited space; but at length necessity and industry taught them to form moveable fields and gardens, which floated on the waters of the lake. They first formed a foundation, or kind of boat, of wicker-work, about eight perches long by three broad, and matted it with water-plants and mud. On these floating foundations, when supplied with manure and mould, they cultivated maize and other useful plants; but afterwards they formed gardens of flowers and odoriferous plants, which were used for the houses of the nobles and for the worship of the gods. Humboldt says that these floating gardens still exist. They are of two sorts: the one mobile, and blown here and there by the wind; the other fixed and united to the shore. Flowers and every sort of garden-herbs are cultivated on them, and thrive abundantly. In the largest gardens there is commonly a little tree, and even a little hut to shelter the cultivator from the sun and rain. When the owner of a garden wishes to change his situation, to remove from a disagreeable neighbor, or to come nearer to his own family, he gets into a boat, and by his own strength alone, if the garden be small, or with aid if it be large, he tows it after him, and conducts it where he pleases, with the little tree and hut on it. The city of Mexico is said by Mr. Bullock to receive an ample supply of culinary vegetables from these floating gardens.

In Cashmere there are floating gardens which have been spoken of as highly beautiful. The city of Cashmere is divided into different isolated portions by small lakes and streams, and the low ground is very liable to be suddenly flooded. As a means of avoiding the inconveniences to which this state of things would expose gardens cultivated in the usual way, the inhabitants are accustomed to make gardens on little floating islands in the lakes. Moorcroft describes the formation of these gardens to be nearly as follows:—Various aquatic plants, such as reeds, water-lilies, &c., spring from the bottom of the lakes to the surface of the water, and there form a green fringed surface. The boats which traverse the lakes, taking in general the shortest way to their respective places of destination, cut various tracks or paths through the weeds. On the sedgy paches thus left the farmer establishes his melon and cucumber floats, by cutting off the roots of the aquatic plants about two feet under water, so that they lose all connection with the bottom of the lake, but still re-

main connected in a group. He then presses them together in closer contact, and forms them into beds about two yards in breadth and of an indefinite length. The heads of the sedge, reeds, and other plants are then cut off and left on the surface of the float, over which is laid a thin coat of mud. This forms a kind of continuous substratum by insinuating itself through the stems of the plants. The float is prevented from being driven about by the wind by driving willow-stakes through it at each end, and which do not prevent it from rising and falling with the rise and fall of the water. When the surface is properly prepared, the farmer introduces into it cucumber and melon plants which he had previously raised under mats, planting them at a distance of two feet apart, after which no further care is required till the fruit is to be gathered. Some of these little garden-islands will bear the weight of a man; but in most cases the farmer rows in a boat to the side of the garden, and there conducts his labors. Moorcroft speaks of the growth of cucumbers and melons on these spots as being singularly luxuriant and successful. Mr. Vigne, while speaking of the lakes near the city, says: "Numerous villages on the edge of the water, surrounded with walnuts and chemars, are taken into the *coup d'œil;* a green causeway which is extended across it is an object of attraction; but we look upon the famed floating gardens of Kashmir (this name, like most of those relating to oriental subjects, is spelt very differently by different writers,) without being able to distinguish them from the green and richly cultivated grounds upon that edge of the water which borders upon the city."

Islands formed of drift-wood are in some respects more remarkable than the floating gardens above described, for they are formed, often on a large scale, by natural causes Floating islets of matted trees are sometimes seen sailing at the distance of fifty or a hundred miles from the mouth of the Ganges, with living trees standing upon them. The Amazon, the Congo, and the Orinoco, present similar phenomena. Spix and Martius relate that during their travels in Brazil they were exposed to great danger while ascending the Amazon in a canoe, from the vast quantity of drift wood constantly propelled against them by the current; so much so, that their safety depended on the crew being always on the alert to turn aside the trunks of trees with long poles. The tops alone of some trees appeared above water; others had their roots attached to them with so much soil that they might be compared to floating islets. On these islets the travellers saw numerous animals, strangely mingled in companionship. On one raft were several strange-looking storks, perched by the the side of a party of monkeys, who made comical gestures, and burst into loud cries on seeing the canoe. On another was seen a number of ducks and divers, sitting near a group of squirrels. Next came down upon the stem of a large rotten cedar tree an enormous crocodile by the side of a tiger-cat, both animals regarding each other with hostility and mistrust.

Green rafts, composed principally of canes and brushwood, are called "camelotes" on the river Parana, in North America: they are occasionally carried down by inundations, bearing on them pumas, caymans, squirrels, and other quadrpueds, who always appear terror-stricken while on these floating habitations. Four pumas were landed in this manner in one night at Monte Video, to the great alarm of the inhabitants, who found them prowling about the streets in the morning. Captain W. H. Smyth told Mr. Lyell, that he had often, when cruising among the Phillippine Islands, met floating masses of wood with trees growing upon them: ships were sometimes in imminent peril from these rapidly moving masses, being mistaken for islands. Another naval officer relates that while returning from China, he encountered near the Moluccas, several small islands, covered with mangrove trees, interwoven with underwood. The trees and shrubs retained their verdure, receiving nourishment from a stratum of soil which formed a white beach round the margin of each floating islet, where it was exposed to the washing of the waves and the rays of the sun; this soil having arisen from the earthy sediment left by the water in all rivers and straits where such rafts are likely to be found.

The river Mississippi, from the existence of vast forests near its banks, is liable to be interrupted by the formation of floating islands far more remarkable than any we have yet noticed. One of the largest of these some years ago was called the raft of Atchafalays, the latter being the name of one arm or branch of the Mississippi. This branch catches a large portion of the timber annually brought down from the northern part of the Mississippi; and the drift trees thus collected, in about thirty-eight years previous to 1816, formed a continuous raft of no less than ten miles in length, two hundred and twenty yards wide, and eight feet deep. The whole rose and fell with the water, yet was covered with green bushes and trees, and its surface enlivened in the autumn by a number of beautiful flowers. It went on increasing till about the year 1835, when some of the trees upon it had grown to the height of about sixty feet. Steps were then taken by the State of Louisiana to clear away the whole raft and open the navigation; which was effected, not without great labor, in the space of four years.

Near New Orleans, where the immense body of water from the Mississippi and its tributaries enters the Gulf of Mexico, large log islands are formed in great number, by a process of which the following are the chief steps: In the early part of the spring, when the "freshets" or "floods" occur, they bring along with them millions of trunks of trees, which become entangled or matted together in a kind of gigantic net-work, several fathoms in depth: they become cemented by earthy deposits, and a rank sort of cane or reed springs up, which helps to unite them. This fringe of reeds retains the mud brought down the river afterwards; and every year then brings its fresh logs, fresh reeds, and fresh mud, followed by the growth of stunted shrubs.

In the higher parts of the Mississippi these floating islands become fixed encumbrances of a most formi

dable kind. There are many sudden bends in the river, and the current at these parts often undermines the banks, and plunges thousands of trees at one dash into the river. The greater number of these trees are swept down to the sea, there assisting to build up the log-rafts just alluded to; many are stopped in their progress by islands standing in the way; while some float into the shallow water between these islands and the main, where they grow into rafts several miles in length, and form, along with the mud deposited by the river, the substratum of future land. But some of the largest of the trees, after being cast down from the position in which they grew, get their roots entangled with the bottom of the river, where they remain fixed to the mud. The force of the current naturally gives their tops a tendency downwards, and soon strips them of their leaves and branches. These fixtures, called "snags," or "planters," are very dangerous to vessels going up the river, since they have their pointed or rugged ends directed obliquely so as to encounter the vessel in its progress, and in such case the bottom of the vessel is extremely liable to be pierced through. These formidable snags sometimes remain so still that they can be detected only by a slight ripple above them, not perceptible to inexperienced eyes; but sometimes they vibrate or rock to and fro, alternately showing their heads above the water and dipping beneath it; a movement which, in the odd language of the West, has earned for them the name of "sawyers." To guard against these "snags" and "sawyers," many of the Mississippi steamboats are provided with a safety arrangement called a "snag-chamber." At a distance of twelve or fourteen feet from the stem of the vessel a strong bulkhead is carried across the hold from side to side, as high as the deck and reaching to the keel. This partition, which is formed of stout planks, is caulked and made so effectually water tight, that the foremost end of the vessel is cut off as entirely from the rest of the hold as if it belonged to another boat. If the vessel happen to run against a snag, and a hole be made in her bow under the surface of the water, this chamber merely becomes filled; for the communication being cut off from the rest of the vessel, no further mischief need ensue.

A floating island in Keswick Lake, in Cumberland, has been the theme of much conjecture for many years. From an account of it, by Mr. Otley, published some years ago in the Manchester Memoirs, it, appears that the place where the island occasionally makes its appearance is in the south-east corner of the lake, not far from Lowdore, generally about a hundred and fifty yards from the shore, where the lake is from three to six feet in depth. The times of its appearance are irregular and uncertain: it has sometimes been observed in two successive years; at other times with an interval of seven or eight years, and mostly about the termination of a warm dry season. Its figure and extent are also variable; sometimes comprising nearly an acre of ground, and at others only a few perches. It is entirely covered with vegetation: its surface, to the depth of a few inches, is composed of a clayey or earthy matter, apparently deposited by the water; and the rest is a kind of imperfectly formed peat-moss. After an absence of eight years, it emerged on the 20th July, 1808, and increased for a few days, till about eighty yards in length. It remained unaltered for some weeks, with its surface about a foot above the level of the water; but it then lowered gradually till the beginning of October, when it sank beneath the surface, and was not seen again till 1813, at which time it rose and remained visible for about six weeks.

Much controversy has arisen respecting the cause of this phenomenon. Some attribute the rising of the earth or peat, or whatever it may be, to the rarefaction of air under it by heat; others thought that a small rill or brook, falling from the mountain opposite the place, might possibly meet with a subterraneous passage, by which it enters the lake unperceived, and reaches to this spot; and that during a dry season its outlet may be so far choked up that on the commencement of rain the confined water may force up this island. Dr. Dalton, in 1815, made an experiment on the island, with a view to determine the nature of the gases which it was frequently known to evolve. He thrust a stick a foot deep into the soil of the island and out of the hole ascended a mixed gas of nitrogen, carburetted hydrogen, and carbonic acid. Mr. Otley had before given an opinion that the ascent of the island to the surface of the water was due to the presence of a large quantity of gas in the spongy material of which the island is formed; and in reference to this opinion, Dr. Dalton remarks:—"Mr. Otley has, I apprehend, suggested the only plausible cause that can be assigned for the rising and sinking of the island. The generation and temporary adhesion of such immense quantities of elastic fluid must have great influence upon the specific gravity of any mass; and when the mass happens to be nearly of the same specific gravity as water, and immersed in it, it will sink or swim according as the adhering volume of air is less or more."

In Esthwaite Lake, Cumberland, a floating island exists which has conveyed as many as fifteen persons at once across the lake.

Curious Invention for discovering Metals at the bottom of the Water.—Lieutenant Ramslett, of the Russian Navy, has made this important discovery. He finds if there is any kind of metal at the bottom of the sea or in rivers, by means of a galvanic pile, of which the isolated conductors are directed to the bottom of the water, where they are brought close together, without coming into absolute contact. When the inferior extremities of these metallic threads touch a metal, it puts them into communication, and establishes a galvanic current in the conductors, the existence of which is manifest to the observer by the declination of a compass placed under one of the threads. When this is ascertained, it is easy, by means of a needle, which can be slid down to the point intimated, to tell whether the metal is iron. The application of this discovery to archæology is much dwelt upon; as by its application, like soundings, in the rivers of the vast old Roman empire, it will readily appear where and what treasures of metallic art are imbedded there. It reminds us of the remarkable practice of finding out mines by the use of a divining-rod.

Poetry.

From the Kentish Observer.

GRACE DARLING.—By Wordsworth.

Among the dwellers in the silent fields
The natural heart is touched, and public way
And crowded street resound with ballad strains,
Inspired by one whose very name bespeaks
Favor divine, exalting human love;
Whom, since her birth, on bleak Northumbria's coast,
Known unto few, but prized as far as known,
A single act endears to high and low
Through the whole land—to manhood, moved in spite
Of the world's freezing cares—to generous youth—
To infancy, that lisps her praise—and age,
Whose eye reflects it, glistening through a tear
Of tremulous admiration. Such true fame
Awaits her *now;* but, verily, good deeds
Do no imperishable record find
Save in the rolls of heaven, where hers may live
A theme for angels when they celebrate
The high souled virtues which forgetful earth
Has witness'd. Oh! that winds and waves could speak
Of things which their united powers call forth
From the pure depths of her humanity!
A maiden gentle, yet at duty's call,
Firm and unflinching as the lighthouse reared
On the island rock, her lonely dwelling place;
Or like the invincible rock itself, that braves
Age after age, the hostile elements,
As when it guarded holy Cuthbert's cell.

All night the storm had raged, nor ceased, nor paused,
When, as day broke, the maid, through misty air,
Espies far off a wreck, amid the surf,
Beating on one of those disastrous isles—
Half of a vessel—half no more; the rest
Had vanished, swallowed up with all that there
Had for the common safety striven in vain,
Or thither thronged for refuge. With quick glance
Daughter and sire, through optic-glass discern,
Clinging about the remnant of this ship,
Creatures—how precious in the maiden's sight!
For whom, belike, the old man grieves still more
Than for their fellow sufferers engulfed
Where every parting agony is hushed,
And hope and fear mix not in further strife.
"But courage, father! let us out to sea—
A few may yet be saved." The daughter's words,
Her earnest tone, and look beaming with faith,
Dispel the father's doubts; nor do they lack
The noble-minded mother's helping hand
To launch the boat; and with her blessing cheered,
And inwardly sustained by silent prayer,
Together they put forth, father and child!
Each grasps an oar, and struggling, on they go;
Rivals in effort; and, alike intent
Here to elude and there surmount, they watch
The billows lengthening, mutually crossed
And shattered, and regathering their might;
As if the wrath and trouble of the sea
Were by the Almighty's sufferance prolonged,
That woman's fortitude—so tried, so proved—
May brighten more and more?
True to the mark,
They stem the current of that perilous gorge,
Their arms still strengthening with the strengthening heart,
Though danger, as the wreck is near'd, becomes
More imminent. Not unseen do they approach;
And rapture, with varieties of fear
Incessantly conflicting, thrills the frames
Of those who, in that dauntless energy,
Foretaste deliverance; but the least perturbed
Can scarcely trust his eyes, when he perceives
That of the pair—tossed on the waves to bring
Hope to the hopeless, to the dying, life—
One is a woman, a poor earthly sister,
Or, be the visitant other than she seems,
A guardian spirit sent from pitying heaven,
In woman's shape. But why prolong the tale,
Casting weak words amid a host of thoughts
Armed to repel them? Every hazard faced
And difficulty mastered, with resolve
That no one breathing should be left to perish,
This last remainder of the crew are all
Placed in the little boat, then o'er the deep
Are safely borne, landed upon the beach,
And, in fulfilment of God's mercy, lodged
Within the sheltering lighthouse. Shout, ye waves;
Pipe a glad song of triumph, ye fierce winds!
Ye screaming sea-mews, in the concert join!
And would that some immortal voice, a voice
Fitly attuned to all that gratitude
Breathes out from floor or couch, through pallid lips
Of the survivors, to the clouds might bear—
(Blended with praise of that parental love,
Beneath whose watchful eye the maiden grew
Pious and pure, modest, and yet so brave,
Though young so wise, though meek so resolute)—
Might carry to the clouds and to the stars,
Yes, to celestial choirs, Grace Darling's name!

WHAT DOST THOU WHISPER, MURMURING SHELL?

By Miss Camilla Toulmin.

What dost thou whisper, murmuring shell?
Child of the fathomless dark sea,
Thou canst great Ocean's secrets tell;
Oh then proclaim thy lore to me!
Teach me the language of thy tone;
What would thy cold still lips reveal?
All the dread mysteries thou hast known,
Oh not forever thus conceal!
What dost thou whisper, murmuring shell?
Wouldst thou dread Ocean's secrets tell?

Bear'st thou unto some heart bereaved
A message, that from parting breath
Thy apt and ready form received,
Ere Beauty found her bridegroom Death?
Or didst thou leave the wide domain,
And thy bright home in coral cave,
To echo Man's shrill cry of pain,
Ere life was vanquished by the wave?
What dost thou whisper, murmuring shell?
Wouldst thou dread Ocean's secrets tell?

WASHINGTON.

THURSDAY, DECEMBER 28, 1843.

RELIEF TO THE DISTRESSED MARINER.

An order has been issued by the Secretary of the Treasury which it is hoped will be the means of preventing much of the distress suffered by vessels approaching our coast in the winter season. Stations have been assigned to the Revenue vessels, embracing the whole Atlantic and Gulf coast from the Northeastern extremity of Maine to the Sabine River, in which they are to cruise during the winter for the relief of distressed vessels. Their orders are to keep as close to the land as may be consistent with safety, and not to go in port oftener than compelled by stress of weather or want of supplies; to speak to all vessels approaching the coast which they may fall in with, and to afford to those requiring aid or relief such assistance as may be adapted to their condition and necessities, and as it may be in the power of the Revenue vessel to render. All supplies will be charged at their cost value, and bills taken with orders from the commanders of the vessels to whom such supplies may be delivered, on their owners or consignees for the amount. To enable the cutters to afford the required assistance to vessels and crews in cases of distress, additional men will be shipped for the winter cruise, and provisions, fuel, and water be carried in such quantities as can conveniently be stowed.

The following are the stations assigned to the respective vessels:

The Alert, to cruise between Mount Desert and Eastport.

The Morris, between Portland and Cape Ann.

The Hamilton, between Boston and Chatham Light.

The Jackson, between Holmes' Hole and Point Judith.

The Madison, between Point Judith and Gardiner's Bay.

The Ewing, between Montauk and Egg Harbor.

The Forward, between Egg Harbor and Chincoteague.

The Taney, between Chincoteague and Cape Hatteras.

The Wolcott, between Capes of Virginia and Baltimore.

The Crawford, between Savannah and Cape Florida.

The Nautilus, between Cape Florida and Tortugas.

The Woodbury, between Ship Island and River Sabine.

From the Norfolk Beacon.

TRIBUTE OF RESPECT.

U. S. Brig Boxer,
Norfolk, *December* 23, 1843.

At a meeting of the officers of this vessel, held on board this morning, Lt. Com'g Oscar Bullus was called to the Chair, and Lt. Jno. Rodgers was elected Secretary, when the following preamble and resolutions were adopted:

Whereas, It has pleased the Almighty in the ways of his mysterious providence, to call to himself from amongst us, the spirit of Dr. Chas. H. Broughton, late Assistant Surgeon of this vessel; a man endowed with those virtues which adorn and elevate humanity, and a Christian possessing that faith and observing those laws that leadeth to eternal salvation:

Resolved, That we sincerely condole and sympathize with his distressed family in their trouble and bereavement.

Resolved, That as a mark of our esteem and respect for his memory, we will wear crape on the left arm for the space of thirty days, and that a copy of these proceedings be sent to his family, and also be published in all the papers of this place.

OSCAR BULLUS, *Ch'n.*

John Rodgers, *Secretary.*

The small iron steamer *Abert*, built at Buffalo, New York, for the Topographical Service, was launched on Thursday. She is designed for the survey of the lakes, and is built on Lieutenant Hunter's plan. Her draught of water is estimated at only three feet.

Sloop of War Albany.—The Albany Evening Journal mentions that, in addition to the *steering wheel* to be presented by the Albany Common Council to the new Sloop of War Albany, a number of the citizens have clubbed for the purpose of procuring a handsome view of the city, from the east side of the river, to be placed in the ship. The picture is to be painted by Cole, one of the most distinguished of American artists. A letter from Mr. Secretary Henshaw announces that orders have been given to prepare a place in the ship's cabin for the proposed picture.

Sackett's Harbor.—In the Black River Journal we find a statement of the efficient service rendered by the *Revenue Cutter*, which, at the suggestion of the Collector of Sackett's Harbor, J. O. Dickey, was recently commissioned on Lake Ontario, in rescuing vessels and cargoes in jeopardy from storms.

The Louisa Brown, with a valuable cargo, was saved by her assistance from going ashore; and the steamboat Clinton and schr. Richmond, both ashore, were got off by the Cutter—saving in these instances alone, besides her aid in the preventive service against smuggling, much more than her cost.

SUBMARINE TELESCOPE.—We have heretofore noticed the invention of this telescope, by Mrs. Sarah P. Mather. An experimental examination into its capabilities was made by the commandant of the navy yard, New York, on Saturday last, assisted by several naval officers and a number of scientific gentlemen; and the result appears to have been highly satisfactory. By the experiments made, (says the New York Express,) it was shown that, by means of an ordinary camphine lamp, placed in a glass globe sunk in the water, sufficient light would be given to enable a person standing on the deck of the ship, to examine distinctly every portion of the ship's hull, even to the smallest nails used in fastening the coppering. Thus a ship at her moorings may undergo as thorough an examination as though she were hauled up into a dry dock, (of course at an immense saving of time and expense,) and in case of a leakage, or other damage to a vessel while at sea, the officer standing on deck can at a glance satisfy himself of the precise nature and extent of the difficulty. It will thus be seen how often, by timely warning and repair, and that often too under circumstances where there would be no other possible means of ascertaining the facts, many a noble ship with the lives of those on board of them, might have been preserved from the destruction that otherwise awaited them. But the powers of this instrument may be easily increased so as to produce much more wonderful results. By the application of the Drummond Light to the apparatus, even in water as turbid as that of the Mississippi river, the vision may be thrown at least to the depth of 250 feet, lighting up a surface of 500 square feet, and in clear water increasing the hundreds to thousands, bringing the smallest object within its range distinctly before the eye.

And it does not stop even here, in revealing the treasures and the mysteries of the deep. If it is desirable or necessary to bring minute objects more distinctly within the range of vision, magnifying instruments of any required power may be added to the submarine telescope with the same facility as to an astronomical observation, thus increasing its power to an almost illimitable extent.

From what we have said it will be seen that this instrument may be applied with great advantage to other purposes beside the examination of the hulls of vessels. In discovering and raising wrecks and other property,—in removing obstructions in rivers and harbors, and ascertaining their precise nature and locality—in prosecuting the pearl fisheries, and in fine, the thousand ways in which marine explorations may be turned to the most profitable or useful account, its advantages to science, to navigation, &c., are almost incalculable. If the subject be taken up by Congress in a properly liberal spirit, and all its advantages developed by scientific experiments, it is not perhaps too much to say that it will be shown to be one of the most important inventions of the age. From the approbation it has received from the great number of scientific and naval men who have examined it, and the results shown by actual experiment, there would seem to be hardly room for objection from the proper authorities to give it a fair trial, and we feel confident that after such a trial the Department would never suffer a ship to leave port without being provided with one of these instruments, so immense would be the saving of expenditure and the increase of safety. The whole apparatus is exceedingly simple and compact, and not at all likely to get out of repair, and in the high commendations we have bestowed upon it we use but the unanimous language of those eminently qualified to judge correctly of its merits.

PROPELLERS.—The London papers state that the handsome steam frigate Rattler, which is the first of her Majesty's steam ships that has been fitted with a screw propeller, was ordered by the Lords Commissioners of the Admiralty to make her fourth experimental trip down the river, to compare her speed and efficiency with the Lightning steam vessel, fitted on the ordinary principle, with paddle wheels. At eleven o'clock, A. M., the Rattler, having on board Captain Appleton, and Commander Smith, Mr. Lloyd, chief engineer, Mr. F. P. Smith, inventor and patentee of the screw propeller, and several other gentlemen, proceeded down the river in company with the Lightning steam vessel, to the measured mile betwixt Erith and Greenhithe, where her speed was tried eight different times, four downwards and four upwards, and the result was very favorable; the speed of the Rattler averaging, on the three first miles down, and three first miles up, with and against the tide, as near as possible nine knots, or about ten and a half statute miles per hour, leaving the Lightning steam vessel in every trial considerably astern, and more particularly when both had to contend with wind and tide, affording abundant evidence that the principles on which the Rattler has been constructed is best adapted to sea going vessels.

Correspondence of the N. Y. Journal of Commerce.

THE MAGNETIC TELEGRAPH.

WASHINGTON, D. C., *Dec.* 23*d*, 1843.

GENTLEMEN: I see by many notices going the rounds of the Journals, all most kindly intentioned, that an erroneous impression of the progress of my telegraphic labors, is likely to be made in the public mind, which I beg of you to correct for me. Although about ten miles of pipe containing the conductors, have been laid down, yet the lateness of the season embarrasses my further operations until the spring.

In an enterprise so entirely new, it can hardly be expected that every part can be conducted with that precision and perfectness which is gained only by experience. Unforseen difficulties will be encountered, and are to be overcome, and delays will of course be incurred. There are no intrinsic ones as yet, of a nature to shake the confidence of the most sanguine in the final triumph of the enterprise. I must crave the indulgence of the public, therefore, assuring them that none can have a deeper interest in its speedy and final success than,

Gentlemen, your obedient servant,

SAMUEL B. MORSE.

COMMERCIAL INTERCOURSE BETWEEN THE ATLANTIC AND PACIFIC OCEANS.—Blackwood's Magazine (the last number) has an admirable article upon the immense benefits which will accrue to the commercial world, from the junction of the Atlantic and Pacific oceans. Certainly the establishment of a communication across the isthmus of Panama would be like the creation of a new geographical and commercial world. It would open to our country the portals to a new field of enterprise, and complete the series of combinations forming to develope the riches with which the Pacific abounds, by presenting to American industry a new group of producers and consumers.

Blackwood suggests that this mighty achievement should be undertaken by the combined agencies of several nations.

"The best expedient, "says the Magazine," would be for the several maritime and commercial nations interested in the success of the enterprise, to unite and enter into combinations, so as to secure for themselves a safe and permanent transit for the benefit of all; and then let the work be undertaken with no selfish or ambitious views, but in a spirit of mutual fellowship, and when completed, let this be a highway for each party contributing to the expense, enjoyed and protected by all. At first sight this idea may appear romantic—the combinations required may be thought difficult, but every where the extension of commerce is now the order of the day, and the good understanding which prevails among the parties, who might be united to concur in the work, warrants the belief that at a moment so peculiarly auspicious little diplomatic ingenuity would be required to procure their assent and co-operation. By means of negotiations conducted in a right spirit, trading nations would be induced to agree and contribute to the expenses of the enterprise, in proportion to the advantages which they may hope to derive from its completion. If for example, the estimate of the cost amounted to half a million sterling, Great Britain, France and the United States, might contribute £100,000 each, and the remainder be divided among the minor European States, each having a common right to the property thereby created, and each a commissioner on the spot to watch over their respective interests.

This would be the most honorable and effectual mode of improving the facilities to which the commerce and civilization of Europe have a claim. It is a settled conviction of the most intelligent persons, who have travelled the isthmus, that the facilities exist to the extent herein described; and unity of purpose is therefore all that is wanting for the attainment of the end proposed. Jealousies would be thus obviated, and to such a concession as the one suggested the local Government could have no objection, as its own people would participate in the benefits flowing from it. The South American States could not hesitate to sanction a grant made for a commercial purpose, and for the general advantage of mankind. The isthmus of Panama, that interesting portion of their Continent has remained neglected for ages, and so it must continue, at least, as regards any great and useful purpose, unless called into notice by extraordinary combinations. With so many prospective advantages before us, it is therefore to be hoped that the time has arrived when the necessary combinations will be entered into to establish a commercial intercourse between the Atlantic and Pacific Oceans, an event that would widen the scope for maritime enterprises more than any that has happened within the memory of the present generation, and connect us more closely with those arctic countries to which we are now comparatively strangers."

A NEW COMET.—Mr. Paye, one of the astronomers connected with the Observatory at Paris France, at one o'clock in the morning of the 22d ultimo, discovered a comet near the star Gamma, of Orion. The position of the star was ascertained to be as follows: On the 22d of November, 1843, at 14 hours 44 minutes 11 seconds medium time at Paris, reckoned from mid-day, the right ascension of the comet was 81 deg. 5 min., and the boreal declension was 6 deg. 56 min. The sky was so cloudy on the following night, that it was only on the 24th that the comet was again seen, when its position was ascertained with comple precision. On the 24th of November, 1843, at 17 h. 14 min. 43 sec. medium time at Paris, counted from mid-day, the right ascension of the comet was 30 deg. 50 min. 42 sec. Boreal declension of the comet 6 deg. 30 min. 35 sec. Thus the apparent right ascension of the comet diminished by seven minutes of a degree within about 24 hours, and in the same interval of time the declension likewise diminished by 12 minutes. This comet presents a head so distinct that the observations are singularly facilitated. From the head slight trains of light diverge nearly opposite to the sun. The tail was about four minutes of a degree in length.

Dr. Smith, of the Observatory, Kensington, London, in a letter to the London Times, dated half past two, 30th November, 1843, gives the following account:—This comet was observed here with the five-feet equatorial, whose object-glass is 4¼ inches aperture, about 8 o'clock last evening; with the large achromatic, of 11 in. 9-10ths diameter, its nucleus, with powers of 150 and 300, seemed not round, but elongated in the direction of the tail; which latter, after moonset, extended about 11 minutes. It does not bear much illumination of the field, although it was easily found with an achromatic telescope of 2¼ inches aperture. At 48 minutes 37 seconds after midnight, its right ascension was about 5 hours 2¼ minutes and 37 seconds, and its northern declination was about 5 degrees 34 minutes and 32 seconds, and it is very near the star A Orionis.

WRECK OF THE MISSOURI.—One of the officers of the U. S. steamship Missouri, in a letter to the True Sun, states that by means of sub-marine armor it has been discovered that the boilers and much of the machinery is comparatively uninjured and will be recovered, and that, after paying salvage, it is supposed that property to the amount of $150,000 will be saved from the wreck.

Correspondence of the New York Herald.

U. S. Ship John Adams,
Rio de Janeiro, *Nov.* 7, 1843.

I have been making up a calculation of this ship's run since we left Boston, and the whole number of miles is 23,191. We have been out from Boston 608 days, and have spent out of this time 247 days at sea, leaving 361 days which we have been in port. We have visited Rio five times; Cape Town twice, St. Augustin Bay (Madagascar) once, Mozambique once, Montevideo three times, and Buenos Ayres twice. I send you this account that you may see whether we have been kept actively cruizing or not. We have sailed in company with the line ship Delaware, Potomac frigate, Concord sloop-of-war, and Decatur, and found that not one of them could held a candle to us in sailing, and what is more, we never have met a ship yet that could sail by us, and only one in exercising, and that was the Decatur.

French Troops.—Mr. Weed, of the Albany Evening Journal, in one of his late letters says:

"Paris has the appearance of a city under martial law. Its National Guard is doing duty as policemen. Sentinels are stationed at the entrances of all the public institutions. Detachments of troops are quartered near each other, throughout the city. The number of soldiers now doing military and civil duty in and about Paris, is over 50,000. All the young men of France, over 18 years old, are liable to be drawn into the army. Indeed Bonaparte's odious Conscription law, by another name, is now practically in operation. When new levies of troops are wanted, all the young men of Paris are warned to meet in their respective Arondissements. If the number assembled be a thousand, and a hundred soldiers are wanted, a thousand numbers are prepared, for which each draws, and those who get the numbers from '1' to '100,' are doomed to the army for eight years! Those who are able, or are fortunate in having wealthy relatives or friends, pay their seven, eight, nine, ten, and sometimes even fifteen hundred francs for a substitute. The pay of a French soldier is about one sous per day, or thirty-five dollars for eight years! Their meat ration is less than half the weight of a soldier's ration in the British or American army. The troops are under-sized men, with slight frames, but they are alert in their movements, and are capable of performing hard service and enduring fatigue and privation."

Revenue Service.

Dec. APPOINTMENT.
23—Wm. Austin, boatswain, and ordered to steamer on Lake Ontario.

Marriage.

On the 12th December, at Woodend, Lunenberg county, Va., Dr. JOHN S. WHITTLE, Assistant Surgeon, U. S. Navy, to Miss JANE ATKINSON, daughter of the late William Patterson, Esq.

Death.

At Norfolk, on Friday evening, the 22d instant, Dr. CHARLES H. BROUGHTON, of the U. S. Navy, aged 27 years.

Office of U. S. Clothing and Equipage,
Philadelphia, Nov. 25th, 1843.

SEALED PROPOSALS will be received at this office, until 10 o'clock, A. M., of the TENTH DAY OF JANUARY NEXT, for furnishing by contract, the following Army Supplies and Materials, deliverable at the United States Clothing and Equipage Depot, Schuylkill Arsenal, in equal monthly proportions, on or before the 1st day of July, 1844, viz:—

4,000 Army Blankets, 6½ feet long, 5 feet wide, weight 4 lbs.
35,000 yards 6-4 Sky Blue (twilled) Cloth.
10,000 " 6-4 Fine Blue "
1,000 " 6-4 " (water proof.)
50,000 " 7-8 Flannel, Cotton and Wool.
30,000 " 3-4 Canton Flannel.
6,000 " 3 4 Bleached Cotton Drilling.
10,000 " 3-4 Unbleached " "
5,000 " 7-8 " " "
60,000 " 7-8 " " Shirting.
5,000 " 7-8 Bleached " "
4,000 Uniform Caps, Dragoon and Infantry.
Hair Plumes, Red and White.
Bands and Tassels for Dragoons.
Metal Cap Equipments for Dragoons, Artillery and Infantry.
Pompons, Artillery and Infantry.
Shoulder Straps, Artillery and Infantry.
" " (brass) for Dragoons.
Epaulettes, N. C. S., Artillery and Infantry
Worsted Sashes, Crimson and Yellow.
" Binding and Cord of all kinds.
Buttons, Dragoon, Ordnance, Artillery and Infantry, vest.
" Infantry, coat.
10,000 pairs of Laced Bootees, 3 sizes (large.)
2,800 doz. pairs Woollen Half Stockings, 3 sizes.
Colors—National.
" Regimental, Artillery and Infantry
" Camp, " "
" Guidous, Dragoons.
Felling Axes.
Hatchets.
Spades.
Drums, complete, Artillery and Infantry.
Casks for 1 year, from 1st April next.

All of which must be of domestic manufacture, and must conform in quality, and all other respects, to the standard patterns, sealed in this office, by which all supplies furnished on contracts will be tested, samples of which for woollen and cotton cloths will be sent by mail, with any additional information upon the subject, which may be desired by manufacturers wishing to offer proposals.

Contracts will be based upon *accepted proposals*: for the faithful fulfilment of which two or more securities will be required. Letters containing proposals should be endorsed, "*proposals to furnish supplies and materials*," and addressed to

HENRY STANTON,
Assistant Quartermaster General,
Nov. 23—wtJan. 10. U. S. A.

ARMY AND NAVY CHRONICLE, for five years—from 1836 to 1840—ten volumes, half bound, and unbound; for sale, at $12 50 per set, in sheets, or $15 per set, bound. Any volume or number may be had separately.
Jan. 19—tf B. HOMANS.

MILITARY LAWS OF THE U. S., Compiled by Col. T Cross of the U. S. Army, full bound, $2 50, in boards $2 per copy. For sale.
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MILITARY AND NAVAL MAGAZINE for three years—from 1833 to 1836, six volumes—bound and unbound, for sale at a very reduced price, by
Jan. 19—tf B. HOMANS.

☞ PRINTING of every description promptly and neatly executed at this office.